acids Delivery: (1) New delivery methods: micro- and nano-robots modeled on insects (MEMS systems), microencapsulation; (2) Directed Energy Weapons Mitigation: (1) Development of systems for identifying and dealing with unknown agents and symptoms; (2) Hazard Identification, Risk Estimation, Risk Reduction Strategies, Residual Risk Evaluation and Monitoring, Mitigation and Recovery Leadership skills needed during uncertainty: Sense making, Visioning, Relating, Inventing.

Conclusions: Preparing for events without training for new and novel CB agents leaves us unprepared. Incorporating modern science with leadership skills will lessen the impact of future CB release and improve organizational resiliency. The main mistake people make is that they fear current problems more than future ones. Carl von Clausewitz Chance favors the prepared mind. Louis Pasteur.

(P1-25) Risk Management in Emergency Situations: Does Germ Simulation Improve the Level of Care?

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Simulation is a major part of the training process for emergency medical professionals. The scenery, sounds, smells, situations, etc. all have been replicated for the benefit of the student. These simulation factors prepare the student to react according to the trainings they received in a controlled environment, but what about germ simulation? The premise of this research is to determine if the outcome of treatment changes when germ simulation is added as a factor. The majority of emergency medical simulations do not factor germs into the situation, and potentially leave the emergency responders exposed, which causes liability, complications, side effects, etc. Generally, the current standards for care and certification include lessons on blood-borne pathogens, disease prevention, personal protective equipment, etc., but there still is a shortcoming between the classroom lessons and a real situation. This research helps answer the following questions: What is the simulation method that can best replicate a real situation? How much potential disease exposure can an emergency medical responder expect? Does the level of treatment increase with the introduction of a germ simulation? What behavior changes occur when germs become a main factor in a simulation? The goal of this research and presentation is to find out if the amount of risk can be reduced with more comprehensive simulations. Ultimately, researchers hope to diminish the risk of disease and illness spreading among responders and at the same time increase the level of care among disaster victims.

(P1-26) Abdominal Trauma: Arteriography versus Laparotomy

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Selective non-operative management of abdominal visceral lesions is one of the most important and challenging changes that occurred in trauma patient care over the last 20 years. The main advantage of this type of management is the avoidance of unnecessary/non-therapeutic laparotomies. Trauma surgeons who deal with this type of treatment are worried of missed abdominal injuries. Modern diagnostic tools (spiral computed tomography, ultrasound, angiography, laparoscopy) allow trauma surgeons to accurately characterize the lesions to be addressed non-operatively. This presentation discusses the main elements of selective, non-operative management of principle solid visceral lesions (liver, spleen, and kidney). The advantages and limitations of the main diagnostic instruments used for evaluation of trauma patients allocated to non-operative management will be highlighted. Polytrauma patients in a Leve-1 trauma center over the last five years were selected and outcomes were analyzed. Pancreatic trauma remains an operative injury. However, surgeons must temper the enthusiasm for non-operative management of patients with solid organ injury, and exclude patients who would best be treated with surgery from this management scheme. Emergency care of the patients according the golden hour and team ability must be considered.

(P1-27) Jumbo Air Crash: A Serious Disaster Management Question

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The new jumbo jets, such as the Airbus680, which can transport 600 to 800 passengers, need special consideration in case of a crash, especially if the crash occurs near the airport. Survival parameters depend on the effect of the brutal deceleration and the high probability of thermic effects due to fire, but also the toxicity of the smoke. These new jets requires a different approach to planning for crashes. The scale of the disaster will be totally new in terms of numbers of casualties, numbers of fatalities, and numbers of family members to for whom to provide psychological and technical information. In addition, the problem of identification of the victims will be heightened, and will require more forensic teams. There is, in fact, only one way to manage this kind of disaster: international cooperation and coordination.

(P1-28) Primary Health Care (PHC) Approach in Emergencies and Disasters

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This presentation will focus on outlining the issues and challenges to developing a framework for a PHC approach for emergencies and disasters. The emphasis will be how the use of the PHC principles to achieve equity and social justice can improve disaster response. These approaches include; universal coverage/equity, community participation, intersectoral collaboration and the use of appropriate technology. Discussion will include; the revitalization of PHC and the role of PHC in emergencies and the challenges of the PHC approach in emergencies. Responding to emergencies from the perspective of disaster risk